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| 09/832,738 | 04/10/2001 | Robert W. Corrigan | SLM-05800 | 3462 |

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| EXAMINER |
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PENG, FRED H

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| ART UNIT | PAPER NUMBER |
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2623

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 09/832,738 | Applicant(s) CORRIGAN ET AL. | |
| | Examiner Fred Peng | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/08/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16, 17, 19-30, 32, 33 and 35-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16, 17, 19-30, 32-33 and 35-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>01/11/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-14, 16-17, 19-30, 32-33 and 35-38 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 16-17, 19-21, 32-33 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morley et al (WO 99/59335) in view of Yoshiura et al (US 6,499,105 B1).

Regarding Claims 1 and 19, Morley discloses a system and corresponding method for securely transmitting and displaying visual data (page 6 lines 5-32) comprising:

an encryption apparatus (FIG.2A, 110) for encrypting the visual data, whereby encrypted visual data is formed (page 9 lines 20-30);

means (FIG.2A, 114, 106) for transporting the encrypted visual data from the encryption apparatus to a display facility (page 10 lines 1-12); and

a display apparatus (FIG.2B, 128A) located at the display facility that receives the encrypted visual data, the display apparatus decrypting the encrypted visual data such that an electronic version of the visual data is maintained within circuit elements that are substantially inaccessible, the display apparatus displaying the visual data as a visual image (page 11 lines 9-15).

Morley also discloses using a decryption key that resides in the display apparatus for decrypting the visual data (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25) and

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securely storing the decryption key within the display apparatus (page 22 lines 20-22), further discloses the encryption apparatus uses encryption keying information for encrypting the visual data (page 21 lines 15-24).

Furthermore, Morley acknowledges that any number of a wide variety of encryption techniques may be used (page 21 lines 15-22). Morley fails to specifically state using a public and private key to decrypt the data and communicating the public key from the display apparatus to an encryption apparatus.

In an analogous art, Yoshiura teaches to use public and private keys for encryption and communicating the public key from the display apparatus to an encryption apparatus (FIG.2, 100, 200, Col 11 lines 54-67, Col 12 lines 1-3, purchaser 200 is the display apparatus side generates the private and public keys and send the public key to the provider 100 to encrypt the content).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and public keys for encryption as taught by Yoshiura so that the data was secure during transmission.

Regarding Claims 2 and 20, Morley shows the elements comprise integrated circuits (page 24 lines 13-24, page 39 pages 19-31).

Regarding Claims 3 and 21, Morley shows using a light valve to display the image through a display circuit (page 44 lines 12-20).

Regarding Claim 16, Morley shows that the decryption takes place within the apparatus (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25). Morley does not show using a public and private key to decrypt the data. Official Notice is taken that it is well known and expected in the art to use public and private keys for encryption.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and public keys for encryption so that the data was secure during transmission.

Regarding Claim 17, Morley shows using a key card to provide the decryption key to the apparatus, which is outside of the display apparatus (page 41 lines 9-32, page 42 lines 1-32). Having this key on the card makes human access to the actual knowledge of the key unavailable. Morley fails to specifically state using a public and private key to decrypt the data. Official Notice is taken that it is well known and expected in the art to use public and private keys for encryption. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and public keys for encryption so that the data was secure during transmission.

Regarding Claim 32, Morley shows that the decryption takes place within the apparatus (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25). Morley does not show using a public and private key to decrypt the data. Official Notice is taken that it is well known and expected in the art to use public and private keys for encryption.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and public keys for encryption so that the data was secure during transmission.

Regarding Claim 33, Morley shows using a key card to provide the decryption key to the apparatus, which is outside of the display apparatus (page 41 lines 9-32, page 42 lines 1-32). Having this key on the card makes human access to the actual knowledge of the key unavailable. Morley fails to specifically state using a public and private key to decrypt the data. Official Notice is taken that it is well known and expected in the art to use public and private keys for encryption. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to modify Morley with a private and public keys for encryption so that the data was secure during transmission.

Regarding Claim 35, Morley shows a display apparatus for displaying encrypted visual data comprising circuit elements that are inaccessible, the elements comprising a decryption circuit and a display circuit for displaying the visual data, such that an electronic version of the data is maintained within circuit elements (page 6 lines 5-32, page 9 lines, 20-30, page 10 lines 1-12, page 11 lines 9-15, page 11 lines 9-15),

Morley also discloses the display apparatus uses a decryption key for decrypting the encrypted visual data (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25), wherein the private key resides within the display apparatus, and wherein the encrypted visual data was previously generated using a encryption key corresponding to the private key (page 21 lines 15-24).

Furthermore, Morley acknowledges that any number of a wide variety of encryption techniques may be used (page 21 lines 15-22). Morley fails to specifically state using a public and private key to decrypt the data. Official Notice is taken that it is well known and expected in the art to use public and private keys for encryption. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and public keys for encryption so that the data was secure during transmission.

Regarding Claim 36, Morley shows using a light valve to display the image through a display circuit (page 44 lines 12-20).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-14, 22-30, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morley et al (WO 99/59335) in view of Kowarz et al (US 2002/0113860).

Regarding Claim 4, Morley shows a light valve but does not show a diffractive light valve. Kowarz shows using a diffractive light valve (page 1 sections 0002, 0004, 0006, page 3 sections 0033, 0036, page 4 section 0039). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley by using a diffractive light valve to provide a brighter, better quality picture to the user.

Regarding Claim 5, Morley shows using a single integrated circuit (fig. 11).

Regarding Claim 6, Morley shows using integrated circuits (fig. 11). Although not specifically stated, since Morley shows a digital transmission and communications system, it is inherent that the visual data is encoded and decoded by digital communications hardware, or circuits.

Regarding Claim 7, Kowarz shows a driver circuit for driving the diffractive light valve (page 4 sections 0039-0041). Morley also shows a driver circuit (page 44 lines 4-30).

Regarding Claim 8, Kowarz shows scanning a line image over a display screen (page 4 section 0039).

Regarding Claim 9, Morley shows a decryption circuit (fig. 11).

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Regarding Claim 10, Morley shows that the transporting of the visual data is electronic transmission (page 6 lines 27-32).

Regarding Claim 11, Morley shows a variety of electronic transmission means (page 6 lines 27-32).

Regarding Claim 12, Morley shows physically transporting the visual data on a storage medium (page 39 lines 5-7).

Regarding Claim 13, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 14, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 22, Morley shows a light valve but does not show a grating light valve. Kowarz shows using a diffractive light valve (page 1 sections 0002, 0004, 0006, page 3 sections 0033, 0036, page 4 section 0039). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley by using a diffractive light valve to provide a brighter, better quality picture to the user.

Regarding Claim 23, Morley shows using a single integrated circuit (fig. 11).

Regarding Claim 24, Morley shows using integrated circuits (fig. 11). Although not specifically stated, since Morley shows a digital transmission and communications system, it is inherent that the visual data is encoded and decoded by digital communications hardware, or circuits.

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Regarding Claim 25, Kowarz shows scanning a line image over a display screen (page 4 section 0039).

Regarding Claim 26, Morley shows that the transporting of the visual data is electronic transmission (page 6 lines 27-32).

Regarding Claim 27, Morley shows a variety of electronic transmission means (page 6 lines 27-32).

Regarding Claim 28, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 29, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 30, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 37, Morley shows a light valve but does not show a diffractive light valve. Kowarz shows using a diffractive light valve (page 1 sections 0002, 0004, 0006, page 3 sections 0033, 0036, page 4 section 0039). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley by using a diffractive light valve to provide a brighter, better quality picture to the user.

Regarding Claim 38, Morley shows a display apparatus for displaying encrypted visual data comprising a decryption circuit for decrypting the visual data (page 6 lines 5-32, page 9

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lines, 20-30, page 10 lines 1-12, page 11 lines 9-15). Morley shows a light valve but does not show a diffractive light valve. Kowarz shows using a diffractive light valve (page 1 sections 0002, 0004, 0006, page 3 sections 0033, 0036, page 4 section 0039). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley by using a diffractive light valve to provide a brighter, better quality picture to the user.

Morley also discloses the display apparatus uses a decryption key for decrypting the encrypted visual data (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25), wherein the private key resides within the display apparatus, and wherein the encrypted visual data was previously generated using an encryption key corresponding to the private key (page 21 lines 15-24).

Furthermore, Morley acknowledges that any number of a wide variety of encryption techniques may be used (page 21 lines 15-22). Morley fails to specifically state using a public and private key to decrypt the data. Official Notice is taken that it is well known and expected in the art to use public and private keys for encryption. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and public keys for encryption so that the data was secure during transmission.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Peng whose telephone number is (571) 270-1147. The examiner can normally be reached on Monday-Friday 08:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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